CITY OF RIVERSIDE

Building & Safety Division
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✤ REQUIREMENTS FOR T-BAR CEILINGS ✤

I. DEFINITIONS

A. Light-Duty Systems: Used primarily for residential and light commercial structures where ceiling loads other than acoustical tile or lay-in panels are not anticipated.

B. Intermediate-Duty Systems: Used primarily for ordinary commercial structures where some ceiling loads, due to light fixtures and air diffusers, are anticipated.

C. Heavy-Duty Systems: Used primarily for commercial structures in which the quantities and weights of ceiling fixtures (lights, air diffusers, etc.) are greater than those for an ordinary commercial structure.

II. SUPPORTS FOR MAIN RUNNERS

A. Vertical Hangers:
1. No. 12 gage wire - 4'-0" on center
2. No. 10 gage wire - 5'-0" on center

B. Wires more than 1 in 6 out-of-plumb are not allowed unless counter sloping wires are provided.

C. Obstructions to Direct Suspension:
1. A trapeze or equivalent device shall be used.
2. For trapeze spans over 48" - use back-to-back 1¼" cold-rolled channels (or equivalent) minimum.

III. PERIMETER HANGERS

A. Main Runners: Supported independently a maximum of 8" from each wall with No. 12 gage wire or approved wall support.

B. Cross Runners: Supported independently a maximum of 8" from each wall with No. 12 gage wire or approved wall support.

NOTE: Some jurisdictions interpret this to mean independent support is not required until the length of the runner exceeds 8". (See UBC Standard 25-2).

IV. LATERAL FORCE BRACING - (Where design calculations are not provided)

A. Horizontal Restraints:
1. Wires
   a. Four No. 12 Gage splayed 90 degrees from each other on the main runner within 2" of the cross runner.
   b. The angle of the wires should not exceed 45 degrees from the plane of the ceiling.

2. Spacing
    a. 12'-0" on center in both directions.
    b. The first point starts within 6'-0" from each wall.

B. Vertical Stability: A strut to resist vertical displacement is required at each seismic splay. The strut should extent from the grid to the structure above and be fastened at both ends.

C. Exception: Lateral force bracing is not required if a ceiling area of 144 square feet or less is surrounded by walls which connect directly to the structure above.

V. LIGHTING FIXTURES - Only "intermediate" and "heavy duty" ceiling systems may be used for the support of lighting fixtures.

A. All lighting fixtures:
1. Shall be positively attached to the suspended ceiling systems.
2. Wires required to the fixture.
    a. Fixtures less than 56 lbs: Two No. 12 gage hangers connected from the fixture housing to the structure above. These wires may be slack.
    b. Fixtures
3. Pendant Hung Fixtures: Shall be supported directly from the structure above with No. 9 gage wire without using the ceiling suspension system for direct support.

B. Intermediate Systems: No. 12 gage hangers attached to the grid within 3" of each corner of each fixture.

C. Heavy Duty Systems: If the modular hanger pattern is 4'-0" on center no additional hangers are required.

VI. MECHANICAL SERVICE

A. Ceiling mounted air terminals or services weighing less than 20 pounds shall be positively attached to the ceiling suspension main runners or to cross runners with the same carrying capacity as the main runners.
Terminals or services weighing 20 pounds but not more than 56 pounds, in addition to the above, shall have two No. 12 gage hangers connected from the terminal or service to the ceiling system hangers or to the structure above. These wires may be slack.
Terminal or services weighing more than 56 pounds shall be supported directly from the structure above by approved hangers.

Information for this outline was obtained from the 1997 Uniform Building Code Standard 25-2.